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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/031,066	01/15/2002	Keiichi Kanaka	009760-015	6058
21839	7590	01/18/2005	EXAMINER	
BURNS DOANE SWECKER & MATHIS L L P			ROBERTSON, JEFFREY	
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ALEXANDRIA, VA 22313-1404			PAPER NUMBER	

1712

DATE MAILED: 01/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/031,066

Applicant(s)

KANAKA ET AL.

Examiner

Jeffrey B. Robertson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,8-14 and 17-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-23 is/are allowed.
- 6) ☒ Claim(s) 1,2,8-11 and 18-20 is/are rejected.
- 7) ☒ Claim(s) 3-6,12-14 and 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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### DETAILED ACTION

1. Although claims 1, 2, 8, 9, and 18-20 were previously indicated as allowed or allowable in the previous office action, in light of the Kumaki et al. reference (U.S. Patent No. 5,451,626) as described below, the allowability of these claims has been withdrawn.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1, 2, 8-11, and 18-20, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumaki et al. (U.S. Patent No. 5,451,626) in view of Aketa et al. (U.S. Patent No. 5,514,739, cited in the previous office action).

For claims 1, 10, and 11, in column 1, lines 23-37, Kumaki teaches a polyester molding composition. In column 3, lines 58-64, Kumaki teaches the addition of a phosphonite compound in an amount of 0.05-2% by weight. In column 4, lines 15-20, Kumaki teaches a phosphonite compound that corresponds to applicant's formula (II) where  $n=1$ . For claim 1, in column 8, lines 8-17, Kumaki teaches that small amounts of other polymers can be added including liquid crystal polyesters, which is capable of forming an anisotropic phase. For claim 2, in column 2, lines 40-46, Kumaki teaches that the polyester of component a) is a polyalkylene terephthalate resin. For claims 9 and 18, in column 7, lines 45-57, Kumaki teaches the addition of inorganic filler in an amount of 5-60% by weight. For claims 8 and 19, lines 23-30, Kumaki teaches that injected molded articles are formed.

Aketa teaches that polyester compositions including liquid crystal polyesters impart desirable characteristics such as high strength, high rigidity, high thermal resistance, and easy moldability in column 1, lines 15-18. For claim 20, in column 2, lines 38-50, Aketa teaches that the liquid crystal polyesters undergo fibrillation to assume an aspect ratio of 6 or more.

Kumaki and Aketa are analogous art in that they both teach polyester molding compositions containing phosphorous additives and the addition of liquid crystal polyesters to these compositions. It would have been obvious to one of ordinary skill in the art at the time of the invention to add the liquid crystal polyester in the amounts taught by Aketa to the polyester compositions of Kumaki. The motivation would have been that Kumaki teaches that small amounts of liquid crystal polyesters can be added,

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but does not set forth the amount of the liquid crystal polymer that can be added. The particular motivation for adding the liquid polyester as opposed to the other polymers suggested by Kumaki is due to the improvements when a liquid crystal polyester is added recognized by Aketa as detailed above. It is the examiner's position that the aspect ratio as claimed in claim 20 would inherently result from the addition of liquid crystal polyester as recognized by the Aketa reference.

***Allowable Subject Matter***

6. Claims 21-23 are allowed. Kumaki et al., applied above, is the closest prior art. This reference fails to teach or suggest the phosphonate compound set forth in claim 21.

7. Claims 3-6, 12-14, and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. For claims 3-5, Kumaki requires a polyester containing a cyclohexane unit. Therefore it would not be obvious to substitute other polymers such as polycarbonates, polyarylates, or polyesters not containing cyclic alkylene groups. For claims 6 and 12-14, Kumaki fails to teach or suggest phosphonates of the formula set forth in these claims. For claim 17, Kumaki does not teach or suggest the addition of another thermoplastic resin.


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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey B. Robertson whose telephone number is (571) 272-1092. The examiner can normally be reached on Mon-Fri 7:00-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jeffrey B. Robertson  
Primary Examiner  
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JBR